

May 31, 85



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF

AMD

Donald F. Theiler, Director
Bureau of Air Management
Wisconsin Department of Natural
Resources
P.O. Box 7921
Madison, Wisconsin 53707

Dear Mr. Theiler:

On March 12-14, 1985, members of my staff participated in the audit of the Wisconsin DNR. The most significant SIP issue to arise during the audit concerns the State's SO₂ rule. As you are aware, final rules and complete technical support materials must be submitted to the U.S. Environmental Protection Agency (USEPA) by September 30, 1985. The vast amount of work to be completed within the next few months will place a tremendous burden on the State's resources. Consequently, the purpose of this letter is to offer special technical assistance to you on this project. We also wish to initiate a tracking mechanism to identify all necessary work and to ensure that this work gets done on time. Essentially, this work consists of performing the modeling, establishing the appropriate emission limit, preparing technical support materials, and submitting the rules and technical support to USEPA.

Attachment #1 presents a summary of the State's various SO₂ rules and USEPA's rulemaking status on these rules. These rules are comprised of two major components (the Statewide Rule and various individual source/area rules) which are discussed separately below.

Statewide Rule

Attachment #2 lists those sources covered by the Statewide Rule. On this list, we have identified the fuel types (based on DNR's February 4, 1985 memo summarizing the 1983 SO₂ Emission Inventory) and the applicable categorical emission limitation. We believe that it would be beneficial to USEPA, the State, and the affected sources to have such a consolidated list available. We would appreciate any comments that you may have on this list. Also included on the list is a column entitled "Status of Modeling". This column could be used as a tracking mechanism for the modeling.

We envision the categorical modeling process as follows:

1. Each source/area is modeled pursuant to the protocol outlined in my October 9, 1984 letter to you. (Note, in multi-source areas, the analyses could be simplified by: a)identifying the "major" sources through an initial screening analysis, b)modeling only these major sources with the full years of meteorological data, c)selecting critical days from the full-year modeling based on the top 5-10 second high concentrations due to all sources and the top 5-10

concentrations due to each major source, and d) modeling all sources on these critical days. Subsequent changes in stack parameters for a major source may necessitate selecting new critical days (for that source) and remodeling these days.)

If the modeling shows that the NAAQS (and PSD increments, if applicable) are protected, then the categorical limit is supportable. The "Status of Modeling" column can then be marked "complete". (Concerning the PSD review, it is necessary to determine if the new emission limitations represent an increase in baseline emissions for those sources located in areas where the baseline date has been triggered. If the allowable emissions are less than or essentially equal to the baseline emissions, then no increment is consumed and the review is complete. If the allowable emissions are greater, however, then this increase in emissions must be modeled to determine the amount of increment consumed. We wish to emphasize that this review only applies in those counties where the SO₂ baseline date has been triggered. We think that these counties and dates are Manitowoc (1979), Price (1980), Outagamie (1983), Calumet (1983), and Wood (1985). Please let us know if this list is correct.)

2. If the modeling shows that the NAAQS (or PSD increments, if applicable) are not protected, then, pursuant to NR 154.12(11)(d), the State will require a more restrictive emission limit. The "Status of Modeling" column can be marked "MREL" (more restrictive emission limit) to reflect that a tighter limit will be incorporated into an Elective Operating Permit. A separate tracking log should be established for these sources.
3. For sources requesting Alternate (ALT) or Variance (VAR) limits, the "Status of Modeling" column should be marked accordingly. (We have already identified those sources which we believe have requested such limits.) Each request will be reviewed on its merits to determine the acceptability of the proposed limits which will be incorporated into an Elective Operating Permit. The State has already established a tracking log for these sources (see Attachment #3).

We offer our assistance for each of these steps. Specifically, we could: 1) perform the protocol modeling for those sources/areas that you have not modeled yet, 2) perform any additional modeling for those sources/areas needing a more restrictive limit, and 3) perform the review of the alternate/variance limit requests. We leave it up to you to identify those sources/areas that you want us to take the lead on. (We, of course, would coordinate our analyses/comments with DNR prior to any contact with an affected source.) In the case of the alternate limit request, for example, we could review all the power plants, which comprise 11 of the 22 requests. (As you may also know, we have already gotten actively involved on 5 other alternate requests because of the PREWAK issue.)

After the modeling is completed, it is then necessary to establish the appropriate emission limits. As noted above, these limits will consist of either the categorical limit or a source-specific limit that will be included in an EOP.

Technical support for sources covered by the categorical limit should consist of a brief summary which: a) identifies the model, model input data (emission inventory, receptor network, meteorological data, and background), and critical concentrations for all averaging times, and b) discusses any items of interest, such as building downwash, ambient air, and PSD increment consumption. DNR's "glossary" memo for categorical SO₂ limit modeling is well-suited to provide this basic information. Technical support for sources covered by an EOP should consist of this same basic information, but in a slightly expanded format. DNR's December 17, 1984 "Modeling Review of Consolidated Papers-Biron PSD Application" provides a good example of the necessary detail. (Note, we suggest that, in addition to the information presented in this Biron memo, DNR also identify the model(s) used and discuss any items of interest.)

Individual Source/Area Rules

Attachment #4 lists those sources/areas covered by individual source/area rules.

USEPA's Notice of SIP deficiency applied statewide, except for those sources regulated under NSPS and for those areas covered by a USEPA-approved Part D SIP. According to our list, the following sources/areas are exempt:

Madison
Brokaw
Appleton Papers (New Boiler)
Consolidated Papers-Biron (Boiler 5)
WPS Weston (Unit 3)
WPL Edgewater (Unit 5)
WEPCO Pleasant Prairie (Units 1,2)
WPL Columbia (Unit 2)
DP Alma (Unit 6)
Flambeau Papers (New Boiler)

Please note, however, that the emission limits for Madison, Brokaw, WPS Weston, WPL Edgewater, and DP Alma (and maybe some of these other sources) may need to be revised pursuant to EPA's soon-to-be-finalized stack height regulations.

Each of the other sources/areas in Attachment #3 that are covered by our SIP deficiency notice are discussed below.

1. Rhinelander - We are still awaiting submittal of the State's rules.
2. Rothschild, Peshtigo - We are currently reviewing the State's rules and expect to initiate rulemaking soon.
3. Milwaukee - We published a proposed approval of the WEPCO Valley limit on August 17, 1984. A notice of final rulemaking has been forwarded to EPA Headquarters. We believe that the 2.22 lbs/MMBTU limit for small coal-burning sources will be part of the categorical modeling for SE Wisconsin. Thus, we will act on the 2.22 limit and the categorical limits for this area together.

4. Green Bay - As we discussed in our February 14, 1985 meeting, further analyses (if necessary) of the Green Bay SIP will await promulgation of USEPA's stack height regulations. Two items which should be resolved in the meantime are: 1)the land use/population density analysis and 2)the protocol for performing additional analyses for P&G Fox River, if necessary. Accordingly, we ask that you provide us with up-dated land use and population density data. As for P&G Fox River, we suggest two options:

- 1) Analyze the existing St. Vincent DePaul monitored data (under conditions when the winds are from the Fox River plant and the bark combustor is not operating) to determine if the NAAQS would be protected with the Fox River plant operating at its modeled emission limitation and emission rate. Concurrent hourly (or daily) ambient SO₂ and fuel/emissions data are required for this analysis.
- 2) Perform a new study with additional ambient monitors and the bark combustor not operating (or not vented to the boiler stack). The new data would be analyzed the same as in Option 1.

We would appreciate DNR's and P&G's thoughts on these options. As noted in our meeting, these additional analyses will only be necessary if the final stack height rules include merged stacks as a prohibited dispersion technique.

5. PSD Permits - As noted in Attachment #3, limits for existing sources are included in several of the new source PSD permits. DNR should review these limits to determine if they are still applicable (or will be superceded by a categorical limit).

In summary, we offer our assistance to you on the modeling for the sources covered by the categorical Statewide Rule and on reviewing requests for alternate emission limits. We believe that DNR and EPA should also begin a tracking mechanism to ensure that all the necessary work gets done on time. We also want to remind you on what needs to be done for those sources not covered by the Statewide Rule.

In order to implement our offer of assistance, I have appointed Mike Koerber to be our main contact to coordinate our technical efforts. If you have any questions concerning this letter, please contact Mike at (312) 886-6061. We await your response.

Sincerely,

Steve Rothblatt, Chief
Air and Radiation Branch

Attachments

Attachment #1

WISCONSIN SO₂ RULES

<u>Section</u>	<u>Description</u>	<u>EPA Action</u>
154.12(1)	General Limitations- <ul style="list-style-type: none"> a) Ambient Standard Restriction b) %S in stand-by fuel limits for sources in SE Wisconsin AQCR c) TRS limits from pulping operations 	Approved: 5/31/72 (37 FR 10902)
154.12(2)	Sulfur Limitations <ul style="list-style-type: none"> a) New (modified) fossil fuel-fired steam generators > 250 MMBTU/hr b) New (modified) sulfuric acid plants c) Sources in SE Wisconsin AQCR less than 250 MMBTU shall not burn coal with <u>sulfur</u> content above 1.11 lbs/MMBTU 	No action
154.12(3)	Petroleum Refineries	No action
154.12(4)	Brokaw RACT Sulfur Limitations (Wausau Papers)	Approved 1979 version: 4/9/81 (46 FR 21165) No final action on 1982 revision
154.12(5)	Madison RACT Sulfur Limitations (Oscar Mayer, MG&E Blount Street, UW-Capitol Htg Plant, UW-Hill Farms, UW-Mendota Hospital, UW-Charter St. Plant, UW-Walnut St. Plant)	Approved 1979 version: 4/9/81 (46 FR 21165) Approved 1981 revision (for Oscar Mayer): 4/13/83 (48 FR 15783)
154.12(6)	Milwaukee RACT Sulfur Limitations (WEPCO Valley)	Proposed Approval: 8/17/84 (49 FR 32865)

<u>Section</u>	<u>Description</u>	<u>EPA Action</u>
154.12(7)	Green Bay and DePere RACT Sulfur Limitations (WPS Pulliam, GB Packaging Fort Howard, P&G Fox River, P&G East River, James River, Nicolet Paper)	No Action
154.12(8)	Peshtigo RACT Sulfur Limitations (Badger Papers)	No Action
154.12(9)	Rothschild RACT Sulfur Limitations (Weyerhauser Papers)	No Action
154.12(10)	Rhineland RACT Sulfur Limitations (Rhineland Papers)	Not Submitted
154.12(11)	Statewide Sulfur Dioxide Limita- tions (see Attachment #2 for list of covered sources)	Not Submitted

(Note, some other sources are covered by federally enforceable) PSD permits.

ATTACHMENT #2

AREAS AND SOURCES IN WISCONSIN
COVERED BY THE PROPOSED SO₂ RULES

FUS ELING DISTRICT	COUNTY	CITY	SOURCE	TOTAL BOILER SIZE		EMISSION LIMIT	
				FUEL			
	LM X	Brown	Green Bay Correctional Institute	COAL	30.0	5.5	
	LM X	Brown	Green Bay	COAL	5.1	5.5	
	LM X	Brown	Green Bay	#BOIL	47.0	3.0	
	LM	Brown	Green Bay	#BOIL	200.0	-	
	LM X	Keweenaw	Algoma	#BOIL	60.0	3.0	
	LM X	Manitowoc	Nanitowoc	COAL	926.9	3.2	
	LM X	Manitowoc	Nanitowoc	COAL	105.0	5.5	
	LM X	Manitowoc	Nanitowoc	#BOIL	135.0	3.0	
	LM X	Marinette	Marinette	COAL	93.5	5.5	
	LM X	Marinette	Marinette	COAL	20.4	5.5	
-T	LM X	Marinette	Niagara	COAL	402.0	3.2	
	LM X	Oconto	Oconto Falls	COAL	57.2	5.5	
	LM X	Outagamie	Appleton	#BOIL	132.0	3.0	
	LN X	Outagamie	Appleton	COAL	96.0	5.5	
	LM XX	Outagamie	Appleton	COAL/#BOIL	444.0	5.5/1.5	
	LM X	Outagamie	Appleton	#BOIL	20.1	3.0	
	-T	LM XX	Outagamie	Uconomowoc Lathing Co.	COAL/#BOIL	571.4	3.2/1.5
	LM X	Outagamie	Kaukauna	COAL/#BOIL	520.0	3.2/1.5	
	LM X	Outagamie	Kimberly	#BOIL	104.0	3.0	
	LM X	Outagamie	Shawano	#BOIL	34.8	3.0	
	LM X	Shawano	Clintonville	#BOIL/COAL	136.0	5.5/5.0	
	LM X	Waupaca	Menasha	COAL	474.5	3.2	
	LM X	Winnebago	Menasha	COAL	230.5	5.5	
	LM X	Winnebago	Menasha	#BOIL	39.3	3.0	
	LM X	Winnebago	Neenah	#BOIL	152.6	3.0	
	LM X	Winnebago	Neenah	#BOIL	544.0	1.5	
	LM X	Winnebago	Neenah	COAL	20.7	5.5	
	LN X	Winnebago	Neenah	#BOIL	38.8	3.0	
	LM X	Winnebago	Neenah	COAL	122.6	5.5	
	LM X	Winnebago	Oshkosh	COAL	19.2	5.5	
	NC X	Lincoln	Herrill	COAL/#BOIL	558.9	3.2/3.0	
	NC XX	Lincoln	Tomahawk	COAL/#BOIL	359.4	3.2/1.5	
-T	NC XX	Marathon	Mosinee	COAL	36.8	5.5	
	NC X	Marathon	Wausau	COAL	5065.0	3.2	
	NC X	Marathon	Weston	COAL	51.2	3.0	
	NC X	Portage	Plover	#BOIL	134.0	3.0	
	NC X	Portage	Plover	#BOIL	178.8	3.0	
	NC X	Portage	Stevens Point	COAL	150.0	5.5	
	NC X	Portage	Stevens Point	COAL	130.0	5.5	
	NC X	Portage	Stevens Point	COAL	5.8	5.5	
	NC X	Portage	Whiting	#BOIL	49.3	3.0	
	NC X	Wood	Biron	COAL	726.0	3.2	
	NC X	Wood	Marshfield	COAL	372.0	3.2	
	NC X	Wood	Marshfield	COAL	20.0	5.5	
	NC XX	Wood	Marshfield	COAL/#BOIL	2.7	5.5/3.0	

STATES OF MODELING

				FUEL	EMISSION LIMIT
ALT	NC X	Wood	Marshfield	coal/#oil	72.4 - 5.5/3.0
ALT	NC X	Wood	Marshfield	#oil	61.2 - 3.0
ALT	NC XX	Wood	Nekoosa	coal/#oil	511.0 - 3.2 /1.5
ALT	NC X	Wood	Port Edwards	#oil	458.2 -
ALT	NC X	Wood	Wisconsin Rapids	coal	300.0 - 3.2
	NW X	Ashland	Ashland	coal	1300.2 - 3.2
	NW X	Ashland	Ashland	coal	34.8 - 3.0
	NW X	Ashland	Butternut	coal	28.8 - 5.5
	NW X	Ashland	Mellen	#oil	6.8 - 3.0
	NW X	Barron	Cameron	coal	8.4 - 5.5
	NW X	Barron	Cumberland	#oil	33.4 - 3.0
	NW X	Barron	Turtle Lake	#oil	34.2 - 3.0
	NW X	Barron	Rice Lake	coal	38.0 - 5.5
	NW X	Douglas	Hawthorne	coal	13.2 - 5.5
	NW X	Douglas	Superior		1000.0
ALT	NW	Douglas	Superior		173.9
	NW X	Douglas	Superior	#oil	323.9 - 1.5
	NW X	Douglas	Superior	coal	160.0 - 5.5
	NW X	Douglas	Superior	coal	10.0 - 5.5
	NW X	Douglas	Town of Superior	#oil	27.5 - 3.0
	NW	Polk	Clayton		37.6
	NW X	Polk	Clear Lake	#oil	40.2 - 3.0
	NW X	Price	Phillips	#oil	30.0 - 3.0
	NW XX	Price	Flambeau	coal/#oil	382.0 - 3.2 /1.5
	NW X	Rusk	Ladysmith	coal	90.7 - 5.5
	SD X	Columbia	Poynette		6.7 - 32.7 - 2.0
	SD X	Dane	Madison	#oil	10.0 - 3.0
	SD X	Dodge	Beaver Dam	coal	11.3 - 3.0
	SD X	Dodge	Horicon	#oil	70.0 - 3.0
	SD X	Dodge	Juneau	#oil	43.0 - 3.0
	SD X	Dodge	Mayville	#oil	20.0 - 3.0
	SD XX	Dodge	Theresa	coal/steam	14.0 - 5.5/3.0
	SD X	Fond du Lac	Fond du Lac	coal	60.6 - 5.5
	SD X	Fond du Lac	Fond du Lac	coal	6.7 - 5.5
ALT	SD X	Grant	Cassville	coal	578.0 - 3.2
	SD X	Grant	Cassville	coal	1800.8 - 3.2
	SD X	Grant	Platteville	coal	90.0 - 5.5
	SD X	Green	Belleville	#oil	60.0 - 3.0
	SD X	Iowa	Cobb	coal	15.5 - 5.5
	SD X	Jefferson	Jefferson	#oil	130.0 - 3.0
	SD X	Jefferson	Jefferson	coal	10.0 - 5.5
	SD X	Jefferson	Whitewater	coal	172.4 - 5.5
	SD X	Richland	Richland Center	coal	155.0 - 5.5
	SD X	Rock	Beloit	coal	166.2 - 5.5
ALT	SD X	Rock	Beloit	coal	556.4 - 3.2
ALT	SD X	Rock	Beloit	coal	1370.6 - 3.2
	SD X	Rock	Beloit	#oil	47.9 - 3.0
	SD X	Rock	Beloit	#oil	60.3 - 3.0
	SD X	Rock	Evansville	coal	5.8 - 5.5
	SD X	Rock	Janesville	coal	543.3 - 3.2
	SD X	Columbia	-	coal	5200.0 - 3.2
	SD X	Dodge	Waupun	coal	142.8 - 5.5

STATUS OF MODELING	FUEL	EMISSION LIMIT				
		NOx	SOx			
DLT	SD	Sauk	Baraboo	U.S. Badger Ammunition	1156.5 — 1.5	
	SE X	Kenosha	Kenosha	American Brass - Arco Metals	#6 OIL	175.0 — 3.0
	SE	Kenosha	Kenosha	American Motors - Main Plt.	#2 OIL	440.0 —
	SE X	Milwaukee	Cudahy	Cudahy Tanning	COAL	17.0 — 5.5
	SE X	Milwaukee	Cudahy	Ladish Co.	#6 OIL	283.6 — 1.5
	SE X	Milwaukee	Cudahy	Patrick Cudahy	#6 OIL	153.0 — 3.0
	SE X	Milwaukee	Glendale	Continental Can	COAL	10.0 — 5.5
	SE X	Milwaukee	Milwaukee	Milwaukee County Institutions	COAL	330.0 — 3.2
	SE X	Milwaukee	Milwaukee	Peter Cooper	#6 OIL	250.0 — 1.5
	SE X	Milwaukee	Milwaukee	Pfister & Vogel	#6 OIL	60.0 — 3.0
	SE X	Milwaukee	Milwaukee	Acme Galvanizing	#6 OIL	3.1 — 3.0
	SE X	Milwaukee	Milwaukee	Allen Bradley	#6 OIL	211.3 — 3.0
	SE X	Milwaukee	Milwaukee	Allis-Chalmers Power House	#6 OIL	789.0 — 1.5
	SE X	Milwaukee	Milwaukee	Alton Packaging Corp.	#6 OIL	4.9 — 3.0
	SE X	Milwaukee	Milwaukee	American Can	#6 OIL	100.0 — 3.0
	SE X	Milwaukee	Milwaukee	American Linen	#6 OIL	13.8 — 3.0
	SE X	Milwaukee	Milwaukee	American Motors - Milwaukee	COAL	167.6 — 5.5
	SE X	Milwaukee	Milwaukee	Eaton/Cutler-Hammer	#6 OIL	72.0 — 3.0
	SE XX	Milwaukee	Milwaukee	Falk Corp.	COAL/#6OIL	80.0 — 5.5/3.0
	SE	Milwaukee	Milwaukee	Froedert Halt		20.0
	SE X	Milwaukee	Milwaukee	G. E. Medical Systems	#6 OIL	151.2 — 3.0
	SE X	Milwaukee	Milwaukee	Inryco & Burnham	#6 OIL	96.3 — 3.0
	SE X	Milwaukee	Milwaukee	Hastor Lock Co.	#6 OIL	65.6 — 3.0
	SE X	Milwaukee	Milwaukee	Miller Brewing	#6 OIL	55.3 — 3.0
	SE X	Milwaukee	Milwaukee	Milwaukee Forge	#6 OIL	60.0 — 3.0
	SE X	Milwaukee	Milwaukee	OMC - Evinrude #1 Plt.	#6 OIL	24.1 — 3.0
	SE X	Milwaukee	Milwaukee	OMC - Evinrude - Plts 2,5, & Foundry	#6 OIL	50.0 — 3.0
	SE X	Milwaukee	Milwaukee	P & V Atlas Corp.	#6 OIL	81.4 — 3.0
	SE X	Milwaukee	Milwaukee	Pabst Brewing	#6 OIL	270.0 —
	SE X	Milwaukee	Milwaukee	Pfister & Vogel - Tanning	#6 OIL	60.0 — 3.0
	SE X	Milwaukee	Milwaukee	Rexnord - Oklahoma		24.6
	SE X	Milwaukee	Milwaukee	Satway Steel Products	#6 OIL	5.5 — 3.0
	SE	Milwaukee	Milwaukee	Teledyne Wisconsin Motors - Plt. 1		16.0
	SE	Milwaukee	Milwaukee	Teledyne Wisconsin Motors - Plt. 2		13.4
	SE X	Milwaukee	Milwaukee	Univ. Foods Red Star Yeast	#5 OIL	24.9 — 3.0
	SE X	Milwaukee	Milwaukee	Vilter Manufacturing	#6 OIL	42.0 — 3.0
	SE X	Milwaukee	Milwaukee	Wisconsin Paperboard Corp.	#6 OIL	240.0 — 3.0
	SE X	Milwaukee	Milwaukee	UW - Milwaukee	#6 OIL	470.5 — 1.5
ALT/VAR	SE X	Milwaukee	Oak Creek	Wisconsin Electric Power Co. - Oak Creek	#6 OIL	44675.0 — 3.2
	SE X	Milwaukee	Oak Creek	Delco Electronics	#6 OIL	365.0 — 1.5
	SE X	Milwaukee	Wauwatosa	J.C. Penney - Catalog		28.9
	SE	Milwaukee	West Allis	Kearny & Trecker		50.0
	SE X	Milwaukee	West Allis	Unit Drop Forge	#6 OIL	146.5 — 3.0
	SE X	Ozaukee	Port Washington	Wis. Electric Power Co. - Port Washington	#6 OIL	4078.0 — 3.2
	SE X	Racine	Franksville	Frank Pure Food	COAL	74.7 — 5.5
	SE X	Racine	Hawkins	Korco Windows	COAL	7.0 — 5.5
	SE X	Racine	Racine	J. I. Case - Tractor Plant	COAL	79.5 — 5.5
	SE X	Racine	Racine	Webster Electric	#6 OIL	20.0 — 3.0
	SE XX	Racine	Racine	Western Publishing	COAL/COAL	103.0 — 5.5/3.0
	SE X	Racine	Sturtevant	S. C. Johnson & Son (Waxdale Plt.)	#6 OIL	200.0 — 1.5
	SE X	Milwaukee		Harley Davidson	COAL	16.8 — 5.5
	SE X	Milwaukee		Milwaukee County House Corp.	COAL	10.0 — 5.5

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				FUEL	EMISSION LIMIT
SE XX	Sheboygan	Kohler	Kohler Co	#6OIL	450.0 — 5.5/1.5
SE X	Sheboygan	Sheboygan	Wisconsin Power & Light - Edgewater	COAL	4561.0 — 3.2
SE X	Sheboygan	Sheboygan	Borden Chemical	#6OIL	33.6 — 3.0
SE X	Sheboygan	Sheboygan	General Box Co.	COAL	4.1 — 5.5
SE X	Sheboygan	Sheboygan	Plastics Engineering - 15th St. Plt.	#6OIL	114.5 — 3.0
SE X	Walworth	East Troy	Colt Industries	#6OIL	18.0 — 3.0
SE X	Washington	Slinger	Carbon Engineering	COAL	50.0 — 5.5
SE X	Waukesha	Muskego	Muskego Rendering	#6OIL	38.8 — 3.0
SE X	Waukesha	Waukesha	International Harvester	#6OIL	11.4 — 3.0
SE	Waukesha	Waukesha	Waukesha Foundry		3.0
WC X	Buffalo	Alma	Dairyland Power - Alma	COAL	5790.0 — 3.2
WC X	Chippewa	Bloomer	Mid America Dairymen	COAL	16.7 — 5.5
WC X	Chippewa	Chippewa Falls	Wisconsin State Ctr. for Dev. Disabled	#6OIL/COAL	132.0 — 5.5/3.0
WC XX	Chippewa	Cornell	Genstar Building Materials	COAL/#6OIL	138.8 — 5.5/3.0
WC XX	Chippewa	Jim Falls	Falls Dairy	COAL/#6OIL	203.2 — 5.5/3.0
WC X	Clark	Granton	Lynn Proteins Inc.	#6OIL	54.6 — 3.0
WC X	Dunn	Menomonie	Sanna Co.	#6OIL	70.0 — 3.0
WC X	Dunn	Menomonie	University of Wisconsin - Stout	COAL	90.0 — 5.5
WC X	Eau Claire	Augusta	Bush Brothers	#6OIL	50.2 — 3.0
WC X	Eau Claire	Eau Claire	Pope & Talbot - Eau Claire	#6OIL	345.3 — 1.5
WC XX	Eau Claire	Eau Claire	Uniroyal	#6OIL / COAL	371.7 — 3.2/3.0
WC X	Eau Claire	Eau Claire	National Presto Industries	#6OIL	100.2 — 3.0
WC X	Eau Claire	Eau Claire	Armour Food	#6OIL	40.0 — 3.0
WC X	Eau Claire	Eau Claire	Imperial - Clevite	#6OIL	16.7 — 3.0
WC X	Eau Claire	Eau Claire	Water Research & Reclamation	#6OIL	16.7 — 3.0
WC XX	Eau Claire	Eau Claire	University of Wisconsin-Eau Claire	COAL/COAL	134.0 — 5.5/3.0
WC X	Jackson	Alma Center	South Alma Cheese	#6OIL	18.7 — 3.0
WC X	LaCrosse	Bangor	Webster Wood Preserving	#6OIL	25.1 — 3.0
WC XX	LaCrosse	LaCrosse	Trane Company	#6OIL / COAL	63.0 — 5.5/3.0
WC XX	LaCrosse	LaCrosse	University of Wisconsin - LaCrosse	COAL/#6OIL	132.0 — 5.5/3.0
WC X	LaCrosse	LaCrosse	G. Heilman	#6OIL	226.3 — 3.0
WC X	LaCrosse	LaCrosse	Heilman Malting	#6OIL	10.0 — 3.0
WC X	LaCrosse	LaCrosse	Paper Calmenson and Co.	#6OIL	9.0 — 3.0
WC X	LaCrosse	LaCrosse	St. Rose Convent & Viterbo College	#6OIL	135.0 — 3.0
WC XX	LaCrosse	LaCrosse	Trane Co. Plt #6	COAL/#6OIL	41.0 — 5.5/3.0
WC X	Monroe	Sparta	Golden Guernsey Dairy	#6OIL	46.1 — 3.0
WC X	Pierce	River Falls	University of Wisconsin - River Falls	#6OIL / COAL	112.8 — 5.5/3.0
WC X	St. Croix	New Richmond	Friday Canning Corp.	#6OIL	75.8 — 3.0
WC X	St. Croix	New Richmond	St. Croix Health Center	#5OIL	27.4 — 3.0
WC X	Trempealau	Whitehall	Whitehall Foods	COAL	36.0 — 5.5
WC X	Trempeleau	Blair	AMPI - Blair Cheese	#5OIL	46.1 — 3.0
WC X	Trempeleau	Blair	AMPI - Blair Whey	#6OIL	90.0 — 3.0
WC X	Vernon	Genoa	Dairyland Power - Genoa	COAL	2786.2 — 3.2

4668W

Others

Scott Paper - Marinette COAL/5.5
 Holy Cross Seminary COAL/5.5
 Winnebago Mental Health Inst COAL/5.5
 Wisconsin Porcelain COAL/5.5

Wisc State & Wisc Colony & Train.Ctr	#6OIL/3.0	Allied Processors	#6OIL/3.0
UW Parkside	#6OIL/3.0	Steiner Corp	#6OIL/3.0
AO Smith	#6OIL/3.0	Burnett Hospital	#6OIL/3.0
James River-Canal	#6OIL/3.0	Domain, Inc.	#6OIL/3.0
Am Can - Menasha	#6OIL/3.0		
Luther Hospital	#6OIL/3.0		
Greenwood Milk	#6OIL/3.0		
A-G Coop Creamery	#6OIL/3.0		

FACILITIES AFFECTED
PROCESS SOURCES

1. Kraft Mills

Number of facilities affected	4
A. Consolidated Papers - Wisconsin Rapids	
B. Nekoosa Papers - Nekoosa	
C. Mosinee Papers - Mosinee	
D. Thilmany Pulp and Paper - Kaukauna	

2. Sulfite Mills

Number of facilities affected	1
Nekoosa Papers - Port Edwards	

3. Petroleum Refineries

Number of facilities affected	1
Murphy Oil - Superior	

Attachment #4

AREAS AND SOURCES IN WISCONSIN
NOT
COVERED BY THE STATEWIDE SO₂ RULES

DISTRICT	COUNTY	CITY	SOURCE	EMISSION LIMIT	EPA ACTION
LM	Brown	Green Bay	GB Packaging P&G Fox River P&G East River James River Fort Howard WPS Pulliam DePere Nicolet Paper	154.12(7)	No action
		Green Bay	P&G Fox River (Fluidized Bed Combustor)	6.2 lbs/hr (27.2 T/yr)	PSD Permit
MARINETTE		Peshtigo	Badger Papers	154.12(8)	No action
CALUMET		Brillion	Brillion Iron Works (Preheater)	0.17%	PSD Permit
MANITOWOC		Kossuth Township	Rockwell Lime (Lime Kiln No. 2)	2.1%	PSD Permit
OUTAGAMIE		Combined Locks	Appleton Papers (New Boiler)	1.12(NSPS)	PSD Permit
NC	WOOD	Biron	Consolidated Papers (Boiler 5)	1.2(NSPS)	PSD Permit (NSPS Limit)
MARATHON		Brokaw	Wausau Papers	154.12(4)	Approved 1979 version: 4/9/81 No final action on 1982 version
	Rothschild	Weyerhauser		154.12(9)	No action
			WPS Weston -Unit 3 -Units 1,2	1.2(NSPS) 4.65	PSD Permit
ONEIDA		Rhinelanders	Rhinelanders Papers	154.12(10)	No action

<u>DISTRICT</u>	<u>COUNTY</u>	<u>CITY</u>	<u>SOURCE</u>	<u>EMISSION LIMIT</u>	<u>EPA ACTION</u>
SE	SHEBOYGAN	Sheboygan	WPL Edgewater Unit 5 Units 1,2 Units 3,4	1.2 (NSPS) 0.0 6.7 (2.15 annual average)	PSD Permit
KENOSHA	Pleasant Prairie		WEPCO Pleasant Prairie(Units 1,2)	1.2(NSPS)	PSD Permit
MILWAUKEE	Milwaukee		WEPCO Valley	NR 154.12(6)	No final action
SE WISCONSIN AQCR			Coal burning sources less than 250 MMBTU/hr	2.22	No action
SD	COLUMBIA		WPL Columbia (Unit 2)	1.2(NSPS)	
DANE	Madison		Oscar Mayer MG&E Blount Street UW-Capitol Htg Plant UW-Hill Farms UW-Mendota Hospital UW-Charter St Plant UW-Walnut St Plant	NR 154.12(5)	Approved 1979 version: 4/9/81 (46FR21165) Approved 1981 revision: 4/13/83 (48FR15783)
WC	BUFFALO		DP Alma (Unit 6)	1.2(NSPS)	
NW	PRICE		Flambeau Papers -New Boilers -Boilers 4,5 -Digestor Blow Tank, Sulfur Burner, Six Stage Evaporators, and "other sources" SO ₂	1.2 2.4% 65.4 lbs/hr (released from 132.5 foot stack)	PSD Permit

SULFUR DIOXIDE EMISSIONS

Emissions Limit	Facility ID Number	Facility Name	Facility Capacity	Stack Number	Boiler Fuel	Thruput Factor (TDS/Year)	Heat Content (BTU/MBTU)	Average Fuel Sulfur Percent	Maximum Capacity (MBTU/Hr)	Fuel Sulfur (WT%)	Actual SO2 Emitted (TONS/YEAR)	Actual SO2 Emitted (TONS/YEAR)	POSSIBLE EMISSIONS	
241007690 X	MIS ELECTRIC POWER OAK CREEK STATION	14078.0	S12	B23 BITUMINOUS COAL	17045.0	39.0	21.6	2.75	3.04	1129.00	4.54	5.02	9161.56	10127.89
241007690 X	MIS ELECTRIC POWER OAK CREEK STATION	14078.0	S14	B28 BITUMINOUS COAL	39258.0	37.0	23.7	2.87	3.20	2567.00	4.72	5.27	21976.12	24496.31
3.2 241007690 X	MIS ELECTRIC POWER OAK CREEK STATION	14078.0	S11	B22 BITUMINOUS COAL	183832.0	35.0	25.7	2.78	3.23	991.00	4.57	5.32	9955.53	11578.66
241007690 X	MIS ELECTRIC POWER OAK CREEK STATION	14078.0	S11	B21 BITUMINOUS COAL	92978.0	35.0	23.7	2.75	2.96	1067.00	4.57	5.07	5056.47	5366.66
241007690 X	MIS ELECTRIC POWER OAK CREEK STATION	14078.0	S13	B25 BITUMINOUS COAL	365691.0	39.0	23.7	2.88	3.12	2295.00	4.74	5.13	20537.21	22248.64
241007690 X	MIS ELECTRIC POWER OAK CREEK STATION	14078.0	S13	B26 BITUMINOUS COAL	555973.0	39.0	23.7	2.80	3.05	2283.00	4.61	5.08	30353.94	33457.74
241007690 X	MIS ELECTRIC POWER OAK CREEK STATION	14078.0	S13	B26 BITUMINOUS COAL	555973.0	39.0	23.5	2.84	3.48	1115.00	4.71	5.78	1315.70	16071.35
241007690 X	MIS ELECTRIC POWER OAK CREEK STATION	14078.0	S12	B24 BITUMINOUS COAL	236831.0	39.0	23.6	2.75	3.96	2608.00	4.59	5.06	32815.48	36126.64
241007690 X	MIS ELECTRIC POWER OAK CREEK STATION	14078.0	S14	B0534657.0	34.5	16.7	6.44	6.49	5266.00	6.72	7.42	12276.01	13637.61	
441043990	MIS PUR-B-LIGHT-COAL-GEN-STATION	14078.0	S12	B22 BITUMINOUS COAL	1604657.0	34.5	16.7	6.44	6.49	5266.00	6.72	7.42	12276.01	13637.61
11003090 X	MIS PUR & LIGHT COLORADO GEN STATION	104166.0	S11	B21 SUF/BITUMINOUS	195502.0	36.7	17.5	0.73	0.81	5200.00	1.53	1.76	2622.14	29095.80
66601870 X	MARYLAND POWER COOP ALMA STATION	9574.0	S10	B23 BITUMINOUS COAL	12366.0	39.0	19.7	2.16	2.94	532.40	4.28	5.82	5206.26	7086.35
66601870 X	MARYLAND POWER COOP ALMA STATION	9574.0	S10	B21 BITUMINOUS COAL	19468.1	39.0	19.7	2.16	2.94	196.00	4.28	5.82	841.06	1144.77
66601870 X	MARYLAND POWER COOP ALMA STATION	9574.0	S10	B20 BITUMINOUS COAL	19768.1	39.0	19.7	2.16	2.94	198.00	4.28	5.82	841.06	1144.77
66601870 X	MARYLAND POWER COOP ALMA STATION	9574.0	S10	B22 BITUMINOUS COAL	16574.1	39.0	19.7	2.16	2.94	289.00	4.28	5.82	698.10	950.19
66601870 X	MARYLAND POWER COOP ALMA STATION	9574.0	S14	B25-SUBBITUMINUS COAL	0.0	16.5	0.52	0.52	3784.00	0.66	1.40	0.06	-0.06	
66601870 X	MARYLAND POWER COOP ALMA STATION	9574.0	S14	B25-BITUMINOUS COAL	941232.0	39.0	16.5	0.31	0.52	3784.00	0.73	1.42	5810.62	5744.96
66601870 X	MARYLAND POWER COOP ALMA STATION	9574.0	S11	B24 SUBBITUMINUS CO	208.0	35.0	16.5	0.31	0.52	3784.00	0.66	1.10	1.13	-1.92
66601870 X	MARYLAND POWER COOP ALMA STATION	9474.0	S10	B24 BITUMINOUS COAL	204373.0	39.0	19.7	2.16	2.94	786.00	4.28	5.82	8508.61	1117.28
25600310 MIS ELECTRIC POWER-PLEASANT VALLEY STATION	6156.0	S10	B20-BITUMINOUS COAL	945294.0	39.0	16.4	0.35	0.52	658.00	0.63	1.06	3226.63	43874.96	
7330046200 MIS PUBLIC SERVICE CORP	MARYLAND POWER COOP SEQUA STATION	5572.4	S10	B20 BITUMINOUS COAL	847114.0	39.0	19.7	2.41	4.65	2786.20	4.77	9.28	39575.15	77015.54
663020920 X	MARYLAND POWER COOP SEQUA STATION	5572.4	S10	B20 BITUMINOUS COAL	128747.8	39.0	21.3	2.13	2.72	825.00	3.90	4.76	3454.45	4411.26
663020920 X	MARYLAND POWER COOP SEQUA STATION	5572.4	S10	B21 BITUMINOUS COAL	684.0	39.0	21.3	2.13	2.72	860.00	3.90	4.76	5357.54	5428.56
7330046200 MIS PUBLIC SERVICE CORP - WESTON PLANT	5565.0	S12	B22-BITUMINOUS COAL	776657.0	35.0	16.6	0.36	0.42	3886.00	0.80	1.62	5414.41	5414.41	
7330046200 MIS PUBLIC SERVICE CORP - WESTON PLANT	5565.0	S10	B20 BITUMINOUS COAL	85168.0	39.0	21.3	2.13	2.72	825.00	3.90	4.76	3454.45	4411.26	
7330046200 MIS PUBLIC SERVICE CORP - WESTON PLANT	5565.0	S11	B21 BITUMINOUS COAL	128747.8	39.0	21.5	2.13	2.72	860.00	3.90	4.76	5357.54	5428.56	
666013070 X	MIS PUR & LIGHT EDENBATER GEN STATION	4561.0	S10	B22 BITUMINOUS COAL	6622.5	39.0	21.5	2.95	3.36	400.00	5.35	6.06	396.96	4331.91
666013070 X	MIS PUR & LIGHT EDENBATER GEN STATION	4561.0	S11	B22 BITUMINOUS COAL	80042.0	39.0	21.2	2.81	3.20	739.00	5.17	5.82	4824.26	54973.82
666013070 X	MIS PUR & LIGHT EDENBATER GEN STATION	4561.0	S11	B24 BITUMINOUS COAL	815506.0	39.0	21.2	2.81	3.12	3022.00	5.17	5.74	46325.17	51446.22
666013070 X	MIS PUR & LIGHT EDENBATER GEN STATION	4561.0	S10	B21 BITUMINOUS COAL	6622.5	39.0	21.5	2.95	3.36	400.00	5.35	6.06	396.96	4331.91
666013070 X	MIS PUBLIC SERVICE CORP - JP PULLMAN PLANT	4495.0	S11	B24 BITUMINOUS COAL	47434.4	39.0	25.7	2.26	2.56	589.00	3.72	4.21	2058.60	2331.97
4505019200 MIS PUBLIC SERVICE CORP - JP PULLMAN PLANT	4495.0	S11	B22-BITUMINOUS COAL	466456.5	39.0	23.7	2.26	2.56	1226.00	3.72	4.21	18935.75	15745.67	
4505019200 MIS PUBLIC SERVICE CORP - JP PULLMAN PLANT	4495.0	S11	B24-BITUMINOUS COAL	174477.1	39.0	23.7	2.26	2.56	804.00	3.72	4.21	7082.62	8946.55	
4505019200 MIS PUBLIC SERVICE CORP - JP PULLMAN PLANT	4495.0	S12	B23-BITUMINOUS COAL	152031.9	39.0	23.7	2.26	2.56	351.60	3.72	4.21	670.64	758.96	
4505019200 MIS PUBLIC SERVICE CORP - JP PULLMAN PLANT	4495.0	S11	B22-BITUMINOUS COAL	79557.5	39.0	23.7	2.26	2.56	351.60	3.72	4.21	360.61	327.84	
4505019200 MIS PUBLIC SERVICE CORP - JP PULLMAN PLANT	4495.0	S14	B25-BITUMINOUS COAL	143483.6	39.0	23.7	2.26	2.56	745.00	3.72	4.21	6257.24	716.25	
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S17	B21 BITUMINOUS COAL	81272.0	39.0	24.9	2.67	3.12	630.00	4.18	4.90	4331.95	5019.45
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S17	B22 BITUMINOUS COAL	29749.0	39.0	25.0	2.74	2.75	816.00	4.27	4.95	1588.49	1595.29
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S16	B24 BITUMINOUS COAL	126593.0	39.0	24.9	2.71	2.93	892.00	4.24	4.67	6685.81	7236.32
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S16	B25 BITUMINOUS COAL	85846.0	39.0	24.9	2.67	2.80	815.00	4.18	4.39	4457.28	4686.86
2460040000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S17	B22 BITUMINOUS COAL	160364.0	39.0	24.9	2.66	2.89	925.00	4.17	4.52	8318.08	9037.71
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S17	B22 BITUMINOUS COAL	162865.0	39.0	24.9	2.63	2.78	846.00	4.14	5.03	8665.38	10045.54
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S11	B24-BITUMINOUS COAL	162276.0	39.0	23.1	2.61	2.76	846.00	4.14	5.03	8254.44	9429.57
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S12	B22-BITUMINOUS COAL	172664.0	39.0	23.1	2.63	2.76	846.00	4.14	5.03	8865.33	10045.53
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S12	B23-BITUMINOUS COAL	182094.0	39.0	23.1	2.61	2.76	846.00	4.14	5.03	8314.44	9429.57
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S14	B22-BITUMINOUS COAL	11043.3	39.0	21.9	2.26	2.10	382.00	3.74	4.21	3466.61	5365.62
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S14	B22-BITUMINOUS COAL	0.0	35.0	21.9	2.26	2.10	382.00	3.74	4.21	0.00	0.00
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S14	B22-BITUMINOUS COAL	47372.7	39.0	21.9	2.26	2.10	382.00	3.74	4.21	102.91	1436.76
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S14	B22-BITUMINOUS COAL	11043.3	39.0	21.9	2.26	2.10	382.00	3.74	4.21	0.00	0.00
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S14	B22-BITUMINOUS COAL	0.0	35.0	21.9	2.26	2.10	382.00	3.74	4.21	0.00	0.00
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S14	B22-BITUMINOUS COAL	47372.7	39.0	21.9	2.26	2.10	382.00	3.74	4.21	102.91	1436.76
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S14	B22-BITUMINOUS COAL	11043.3	39.0	21.9	2.26	2.10	382.00	3.74	4.21	0.00	0.00
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S14	B22-BITUMINOUS COAL	0.0	35.0	21.9	2.26	2.10	382.00	3.74	4.21	0.00	0.00
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S14	B22-BITUMINOUS COAL	47372.7	39.0	21.9	2.26	2.10	382.00	3.74	4.21	102.91	1436.76
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S14	B22-BITUMINOUS COAL	11043.3	39.0	21.9	2.26	2.10	382.00	3.74	4.21	0.00	0.00
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S14	B22-BITUMINOUS COAL	0.0	35.0	21.9	2.26	2.10	382.00	3.74	4.21	0.00	0.00
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S14	B22-BITUMINOUS COAL	47372.7	39.0	21.9	2.26	2.10	382.00	3.74	4.21	102.91	1436.76
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S14	B22-BITUMINOUS COAL	11043.3	39.0	21.9	2.26	2.10	382.00	3.74	4.21	0.00	0.00
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S14	B22-BITUMINOUS COAL	0.0	35.0	21.9	2.26	2.10	382.00	3.74	4.21	0.00	0.00
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S14	B22-BITUMINOUS COAL	47372.7	39.0	21.9	2.26	2.10	382.00	3.74	4.21	102.91	1436.76
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S14	B22-BITUMINOUS COAL	11043.3	39.0	21.9	2.26	2.10	382.00	3.74	4.21	0.00	0.00
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S14	B22-BITUMINOUS COAL	0.0	35.0	21.9	2.26	2.10	382.00	3.74	4.21	0.00	0.00
246004000 X	MIS ELECTRIC POWER PT WASHINGTON STATION	4078.0	S14	B22-BITUMINOUS COAL	47372.7	39.0	21.9	2.26	2.10	382.00	3.74	4.21		